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REACTANCE THEORY AND DRINKING LEGISLATION

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ABSTRACT

PURPOSE: the purpose of this study was to test Reactance Theory among a sample of university students over a seven year period in which the drinking laws were undergoing change in the United States. Reactance Theory suggests that telling underage students it is illegal to drink is likely to be counterproductive. Since July 1987, it has been illegal in the United States for those under 21 years of age to purchase alcohol. **METHODS:** A sample of 3,375 college students during the 1987-1988 academic year was collected throughout the nation. **RESULTS:** it was revealed that significantly more underage students (81%) drank compared to legal age drinkers (75%) and were heavy or at risk drinkers (24%) compared to legal age students (15%). They also exhibited more drinking related problems. **CONCLUSIONS:** the results of this study support Reactance Theory.

BACKGROUND

Drinking among college students has been traditional for decades no matter what the legal status of alcohol consumption. Over 80% of all college students drink (Engs and Hanson, 1988) and underage students have been found just as likely to drink as legal age students (Engs and Hanson, 1986; Perkins and Berkowitz, 1989).

Until July 1987, the drinking laws of various states varied. This could have possibly led to inaccurate comparisons of underage compared to legal age students as students often went to contiguous states to obtain alcohol where it was legal for them to drink. However, since the law change all states were required to have or enact laws establishing 21 as the minimum purchase age. The intent of this law was to decrease drinking and alcohol abuse among youth, including

college students. Because of this law, it is now possible to better examine evidence concerning the drinking patterns of legal compared to underage students without the intervening variable of going to other states to legally drink.

Researchers in the behavioral sciences have found that telling persons not to do something often produces the opposite reaction. People value their sense of freedom and autonomy and like to project an image of self-control (Baer, et al., 1980). Reactance theory suggests that whenever people believe their freedom either has or will be threatened; they enter into a reactance motivational state and act to regain control by not complying (Brehm, 1966). Coercion, in particular, leads to the arousing of reactance, which tends to reduce compliance (Brehm and Brehm, 1981). Reactance has sometimes been called the “forbidden fruit theory.”

Based upon this theory, it is implied that more underage students may drink, or have more alcohol related problems, out of rebellion and reactance arousal compared to legal student drinkers. This would be related to the fact that they feel their autonomy is threatened as alcohol for decades has been a campus tradition for all age students.

Because all college and universities receiving federal funds must have drug/alcohol programming, we collected data concerning alcohol consumption and drinking problems after the nation-wide institution of the minimum 21 year old purchase law. This information would make it possible to design programs based upon current alcohol abuse problems experienced by students and to test reactance theory.

Hypothesis and Purposes of Study

Because drinking is typically part of the college experience and because it is now illegal for college students under twenty-one in all states to purchase alcohol, it is hypothesized that reactance motivation will be aroused among underage college students leading them to exhibit higher levels of both:

- 1) quantity-frequency of alcohol consumption, and
- 2) mean higher percent of drinking problems compared to collegians of legal purchase age.

Thus the purpose of this study was to test reactance theory with under compared to over 21 years of age drinking patterns and behaviors.

METHODS

Instrument

An anonymous pre-coded instrument, The Student Alcohol Questionnaire (Engs, 1975) which has been used by hundreds of researchers over the past 15 years, was used. It has demonstrated an internal consistency reliability of .79 and includes demographic items, questions regarding the

consumption of various alcoholic beverages, and 17 items concerning possible negative consequences of drinking. The instructions on the instrument explained the voluntary nature of participation in the study as approved by the authors' respective Human Subjects Review Committees.

Sample

During the 1987-88 academic year, a sample of colleges was selected to reflect the universe of students attending colleges in terms of region of the country, type of colleges and demographic make up of students were asked to participate in a national study during the 1987-88 academic year. All colleges had participated in the authors' earlier studies. Instructors of survey type sociology, health or physical education courses which had a high probability of containing students from every academic major and class year were asked to administer up to 75 questionnaires in their class. The resulting sample contained 3,375 students from 56 universities from every state.

The demographic characteristics of the sample are as follows: Type of school: public (94%), private(6%); Region of the country: North East(29%), North Central (21%), South(22%), West (28%). Size school: less than 10,000(40%) greater than 10,000(60%); Year in school: freshmen(27%), sophomores(26%), juniors(26%), seniors(21%); Gender: males(40%), females(60%); Race: white(93%). Black(7%). The Yearbook of Higher Education indicates that 77% of all students attend public institutions; 52% are female; 91% are white; and 25% are from the Northeast, 25% North central, and 24% each from the South and West. The demographic composition of the sample closely approximates that of students attending baccalaureate institutions of higher learning in the United States other than a slight over-representation of female students and those attending public intuitions.[#]

Data Analysis

Data analysis between the two age groups for drinking patterns and problems was accomplished by Chi-Square analysis using the SPSS cross tabulation method. A drinker was considered someone who consumed alcohol once a year or more. A heavy drinker was a person who consumes six or more drinks at any one sitting at least once a week. The sample had high power for detecting significant difference due to its large size. According to Cochran (1952) the power for Chi-Square analysis for large sample sizes approaches one. The mean number of problems out of the 17 experienced by a student during the previously 12 months were summed to determine the total number of problems experienced. Due to the large sample size to rule out type 1 errors the .01 level of significance was used.

RESULTS

A significant difference ($X^2 = 47.5$ df=5 $p < .001$) between the drinking patterns of legal age compared to underage students was found. Of underage students, 81.2% were drinkers compared to 75.3% of legal age students. Additionally, a higher proportion of underage students were heavy drinkers (24.0%) compared to those of legal age (15.3%). (See TABLE 1)

Among those students who indicated they were drinkers, there were significant differences between underage and legal age students in the mean number of problems out of the 17 which they had exhibited. The underage students had exhibited significantly more ($p < .01$) more problems (3.0 vs 2.7) than the legal age ones. (See TABLE 2)

DISCUSSION

Even though it is illegal for much of the student population to purchase alcohol, it is clear that more underage students, compared to students of legal age in this national sample, drink and that a higher proportion of these underage students were heavy drinkers. Furthermore, among drinkers, a higher proportions of underage students were heavy drinkers. Thus the first part of the hypothesis which posits that underage students would have a higher quantity-frequency level of drinking due to reactance was supported. Likewise underage students exhibited more drinking related problems than legal age students. Thus the second part of the hypothesis was supported.

In conclusion, a statistical higher proportion of underage students drink, were heavy drinkers and experience a more alcohol abuse problems compared to students of legal age. These findings support reactance theory, which suggests that if individuals perceives their autonomy to be denied, they will do the opposite in order to regain control.

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Table 1 Drinking patterns of all students by age group in percent

Drinking age	Age Group	
	Under 21 (N = 1,987)	21 and over (N = 1,388)
Abstainer	18.8	24.7 *
Infrequent Drinker	9.5	11.0
Light Drinker	9.5	11.1
Moderate Drinker	17.8	18.1
Moderate/Heavy Drinker	20.4	19.8
Heavy Drinker	24.0	15.3

* $p < .001$

ABSTAINER, drinks less than once a year or not at all; **INFREQUENT DRINKER**, drinks more than once a year but less than once a month; **LIGHT DRINKER** drinks at least once a month but not more than 1 to 3 drinks at any one sitting; **MODERATE DRINKER** drinks at least once a month with no more than 3 to 4 drinks, or at least once a week with no more than 3 to 4 drinks, or at least once a week with no more than 1 to 2 drinks, at any one sitting; **MODERATE/HEAVY DRINKER**, drinks 3 to 4 drinks at least once a week or drinks 5 or more drinks at least once a month or drinks 5 or more drinks at least once a month; and **HEAVY DRINKER**, drinks six or more drinks at any one sitting more than once a week.

Table 2 :Comparison between Underage and Legal Drinkers in the Number of Problems Experienced

	N	Mean	SD	t	p
Under 21	1,987	3.0	2.9	3.36	.001
21 plus	1,388	2.7	3.0		

* $p < .01$